REMARKS

Review and reconsideration on the merits are requested.

Allowable Subject Matter

Of the remaining claims, the following claims were indicated to be allowable if the rejection Under 35 U.S.C. § 112 second paragraph, was overcome (see Paragraph 32 at page 13 of the Action):

Claim Amendments

Claims 38, 39, 41, 42, 52 and 53.

Applicants amend the claims. They are discussed shortly hereafter, but Applicants wish to present the categories of the claims.

The claims can be grouped in the following categories:

A first category including claim 1 and claims dependent therefrom (shown in Table A);

a second category including claim 38 and claims dependent therefrom (shown in Table A);

a third category including claim 52;

a fourth category including claim 53; and

a fifth category including claims 49, 54 and 55.

Claims 43-45 have been canceled.

The relationship among the amended claims is rather complicated, and Applicants explain this relationship in Table A below.

Table A

Claims	Contents	Actions
First category		
1	Voids as stress release portions between peripheral wall layer and grooves	Amended to add the number of grooves having said voids is 7% or more of the total number of the grooves"

28	Further having stress release portions in peripheral wall layer	Not amended
29	Stress release portions are voids provided in peripheral wall layer	Not amended
30	Total length of voids	Not amended
31	Voids in peripheral wall layer are slits	Not amended
32	Voids in peripheral wall layer are cracks	Not amended
47	Peripheral wall layer is formed before or after firing	Not amended
48	Ceramic honeycomb structure has isostatic strength of 1.5 MPa or more	Not amended
Second category		
38	Peripheral wall layer comprises amorphous silica having a thermal expansion coefficient of 10.0×10^{-7}/°C or less	Amended to overcome § 112 rejection
39	Further having stress release portions between peripheral wall layer and grooves	Not amended
41	Number of grooves having voids between peripheral wall layer and grooves is 7% or more	Amended to depend from claim 39
42	Total length of contact portion of grooves with peripheral wall layer is 95% or less	Amended to depend from claim 39
46	Further having stress release portions in peripheral wall layer	Amended to depend from claim 38
Third category		
52	Made of amorphous silica having. thermal expansion coefficient of 10.0×10^{-7}/°C or less, and colloidal silica and/or colloidal alumina	Amended to overcome § 112 rejection
Fourth category		
53	Coating material	Not amended
Fifth category		
49	Particulates-capturing filter using ceramic honeycomb structure of claim 1	Not amended
54	Particulates-capturing filter using ceramic honeycomb structure of claim 38	New
55	Particulates-capturing filter using ceramic honeycomb structure of claim 52	New

Applicants now turn to:

DETAILED ACTION

Claim Objections

Of claims 1, 38, 43 and 52 which remain active, Applicants have removed pronouns (specifically "its") from the claim language and have used appropriate alternate language.

Withdrawal is requested.

Claim Rejections - 35 U.S.C. § 112, Second Paragraph

Claims 1, 38, 43 and 52 were rejected under this section.

Only claims 1 and 52 remain under prosecution.

The Examiner had also rejected claims dependent from claims 1, 38, 43 and 52, and these are not discussed.

With respect to claims 1, 30, and 52, first, Applicants replace "larger number" with "plurality"; second, Applicants delete the "inside said grooves" language.

Withdrawal is requested.

With respect to Paragraph 8 of the Action where claim 43 is rejected, claim 43 is canceled.

Paragraphs 9-14 of the Action

The rejections of these paragraphs have been mooted by canceling claim 43.

The Prior Art Applied Against Remaining Claims

EP 0449556A1 Horikawa (Horikawa); U.S. Patent No. 4,416,675 Montierth (Montierth); JP 2001-046886 Nishimura et al (using U.S. 6,696,131B1 Nishimura et al (Nishimura) as an English language equivalent).

The Examiner's application of the prior art is set forth in the Action in detail and will not be repeated here except as necessary to an understanding of Applicants' traversal which is now presented.

Traversal

With respect to claim 1, the Examiner states:

"Horikawa et al disclose the viscosity of the coating material applied to the peripheral surface is 100-200 poises (10,000-20,000 cp). When the coating viscosity is greater than 200

poises it is likely that the coating material is not uniformly spread over the outer periphery of the structural body (page 4, lines 6-10)."

"It would be reasonable to believe a non-uniform spread of coating, which has the same viscosity as the coating disclosed by Applicant, would also create voids when applied to the peripheral surface of a honeycomb comprising grooves. ... Therefore, Applicant's honeycomb comprising stress release portions (voids) between the peripheral wall and the grooves is implicitly taught by Horikawa et al and is therefore anticipated."

The Examiner has thus assumed that stress release portions (voids) are formed by applying a coating material having a viscosity substantially greater than 20,000 cp, based on the fact that a coating material having a viscosity greater than 20,000 cp cannot form a uniform peripheral wall. This viscosity value of 20,000 cp is identical to the lower limit of viscosity described in the specification of the present application.

In light of the above discussion, Applicants have added to claim 1 the requirement that the number of grooves having said voids is 7% or more of the total number of the grooves.

In this regard, it might be helpful to review Serial No. 11/689,880, the parent/divisional of the present application which was recently allowed/issued. Issue Notification has been received indicating that projected patent number 7,591,918 will issue September 22, 2009. The '880 application is directed to a method for producing a ceramic honeycomb structure.

Claim 30 of the '880 application contains a limit "having a viscosity of 28,000 cP or more." The lower limit of this viscosity requirement corresponds to Example 8 shown in Table 4 in the present application. When the viscosity of the coating material is 28,000 cP, the number of grooves having voids is 7% or more of the total number of the grooves. In this case, the

ceramic honeycomb structure has a high a thermal shock resistance temperature, e.g., as high as 525°C.

On the other hand, in the case of Example 7 using a coating material having a viscosity of 25,000 cP, 2% was the number of grooves having voids, and thus the ceramic honeycomb structure had a thermal shock resistance temperature of 475°C, much lower than that of Example 8.

It is clear from this comparison that even at a viscosity of 25,000 cp, higher than the 20,000 cp at issue, one obtains a ceramic honeycomb structure where the number of grooves having voids is 2% and the thermal shock resistance temperature is 475°C, i.e., a ceramic honeycomb structure having the number of grooves having voids of 7% and a thermal shock resistance temperature is 525°C would not be obtained from a coating material having a viscosity of up to 20,000 cp as described in Horikawa.

Applicants respectfully submit that to one of ordinary skill in the art it would only be logical to conclude that if a viscosity of 25,000 cp does not provide the desired number of grooves having voids of 7% or more, then a viscosity of 20,000 cp certainly would not provide such desired result.

Therefore, it is believed that claim 1 having the requirement that the number of grooves having said voids is 7% or more of the total number of the grooves is not obvious from Horikawa.

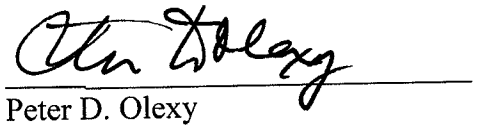
Applicants thus respectfully submit that claim 1, including the requirement that the number of grooves having said voids is 7% or more of the total number of grooves is not obvious over Horikawa, alone or in combination with any other prior art.

Withdrawal and allowance is requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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